Table 2. Monthly Climate Summary for Fairfield, Idaho for years 1948 to 2003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (°F)	29.1	34.6	42.1	55.0	66.6	75.5	85.4	84.2	74.9	63.1	43.8	32.0	57.2
Average Min. Temperature (°F)	5.2	8.1	16.6	27.4	34.8	40.4	45.9	43.8	35.3	26.9	17.8	8.2	25.9
Average Total Precipitation (in.)	2.35	1.72	1.30	1.05	1.22	0.96	0.46	0.43	0.66	0.77	1.85	2.30	15.08
Average Total Snowfall (in.)	21.5	12.3	6.9	2.0	0.5	0.0	0.0	0.0	0.2	0.7	7.7	19.5	71.4
Average Snow Depth (in.)	15	19	11	1	0	0	0	0	0	0	1	8	5

Table 3. Monthly Climate Summary for Hill City, Idaho for years 1931 to 2003

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (°F)	28.7	33.2	40.3	53.8	65.4	73.7	85.4	84.7	74.8	61.8	42.9	31.7	56.4
Average Min. Temperature (°F)	5.9	8.9	16.9	27.7	34.9	39.9	45.3	43.3	35.2	27.0	18.8	9.5	26.1
Average Total Precipitation (in.)	2.29	1.59	1.27	1.00	1.16	0.96	0.36	0.36	0.57	0.94	1.71	2.20	14.42
Average Total Snowfall (in.)	22.0	14.3	7.5	1.4	0.3	0.0	0.0	0.0	0.1	0.5	7.0	20.8	73.8
Average Snow Depth (in.)	16	16	12	2	0	0	0	0	0	0	2	8	5

4.0 EXISTING CONDITIONS AND RESOURCES

This section focuses on wildland fire issues and how they impact current conditions in Camas County. Existing conditions and resources were determined by: (1) interviews with all local fire chiefs, as well as local, state, federal employees, and county residents. (2) surveying and photographing subdivisions within a WUI that were identified by fire chiefs as areas of concern, (3) documenting and photographing fuel loads within these subdivisions and along subdivision access roads, (4) recording all information on specific forms (see Field Assessment Forms and Ratings - Tables 8, 9, and 10) and in accordance with a Assessment Ignition Model (Cohen, 1995) and, (5) locating potential fire fighting water sources such as hydrants, ponds, live streams, and irrigation mainline access points (Figures 5 and 10).

Risk of Fires and Fire Frequency

Wildfire risk within and around Camas County is generally moderate due to the proximity of large areas of agricultural land. Areas adjacent to and south of the Sawtooth National Forest (SNF) are high risk due to fuel loads, lack of survivable space around structures, and higher population density during the fire season. Areas within SNF have experienced mostly natural fires of high frequency and low acreage (less than 10) along ridgelines. Figure 3 shows fuel loads and historical fire perimeters and Table 4 shows a number corresponding to the location of a particular fire seen on Figure 3; fire years; individual fires; and, acres burned (10 or more) for years 1995 to 2003. These data represent only wildland mutual aid fires on BLM and does not include grass and brush fires, structural or other types fires or SNF data. Contact fire department chiefs and/or SNF in Fairfield for additional fire history data. Overall, the highest fire frequency occurred on national forest coniferous and sagebrush-grassland vegetation types and will continue to be high in these types due to the accumulation of flammable fuels over the past decade combined with drought.

Table 4. Camas County fire history for years 1995 to 2003.

Number*	Year	Fire**	Acres
1	1995	Hill City	113
2	1995	Wolf Lane	10
3	1996	Davis Mountain	3,928
4	1998	McCan Gulch	523
5	2001	Willow Creek	13,011
6	2001	Beaver Creek	348
7	2003	Elk Creek	350
		Total	**18,283**

*See Figure 3, page 8
** BLM mutual aid fires only

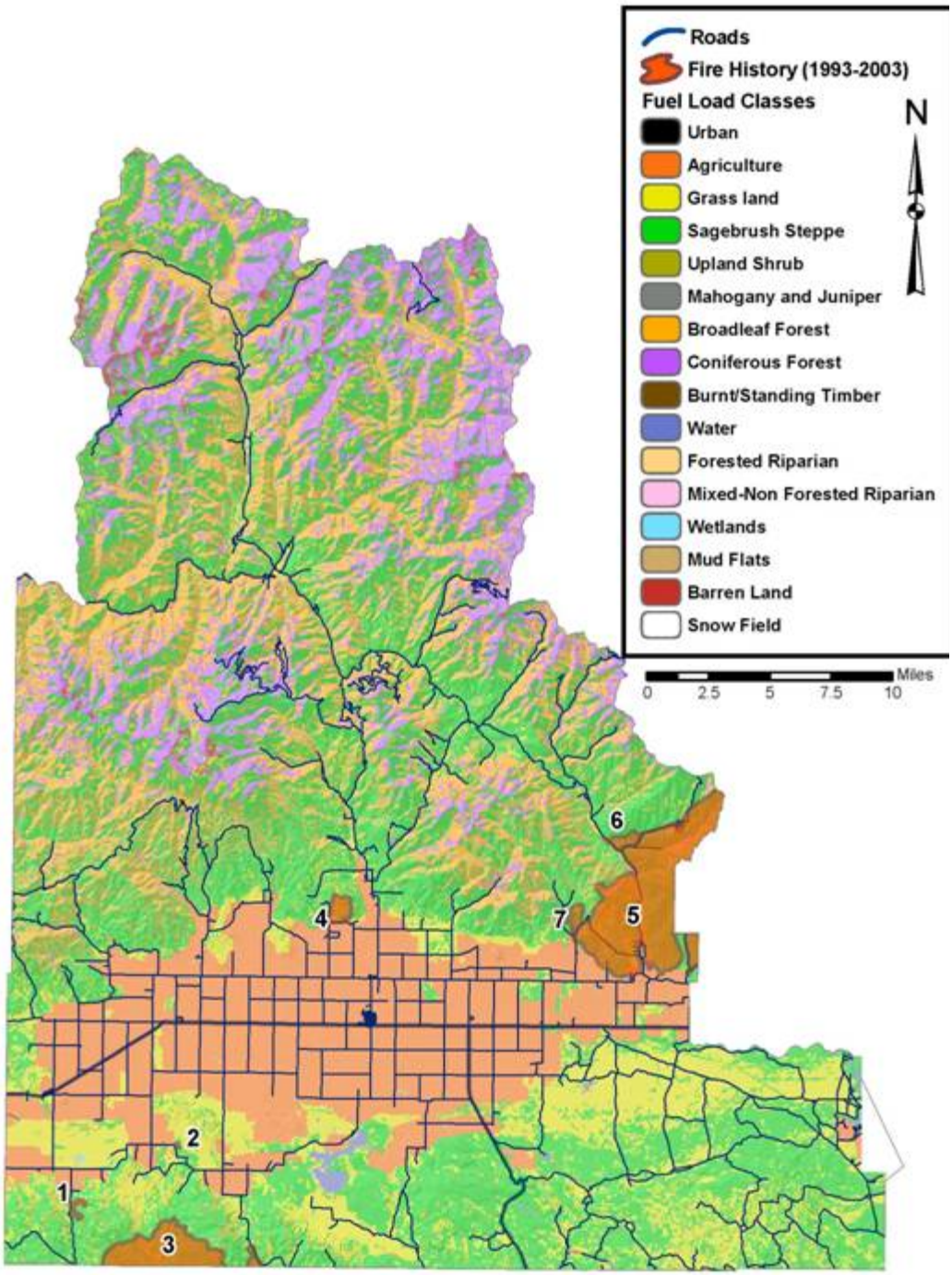

Figure 3. Fuel loads and historic fire perimeters within Camas County.

Slope Risk Model

Figure 4 shows the Slope Risk Model for Camas County. The steepest slopes are located in the northern portion of the county and extreme southwest and can cause fires to spread rapidly because of convection and radiant heat and the fact that the flames are closer to the fuels. There is a correlation between the high fire frequency and steep slopes on the Sawtooth National Forest (Figure 3).

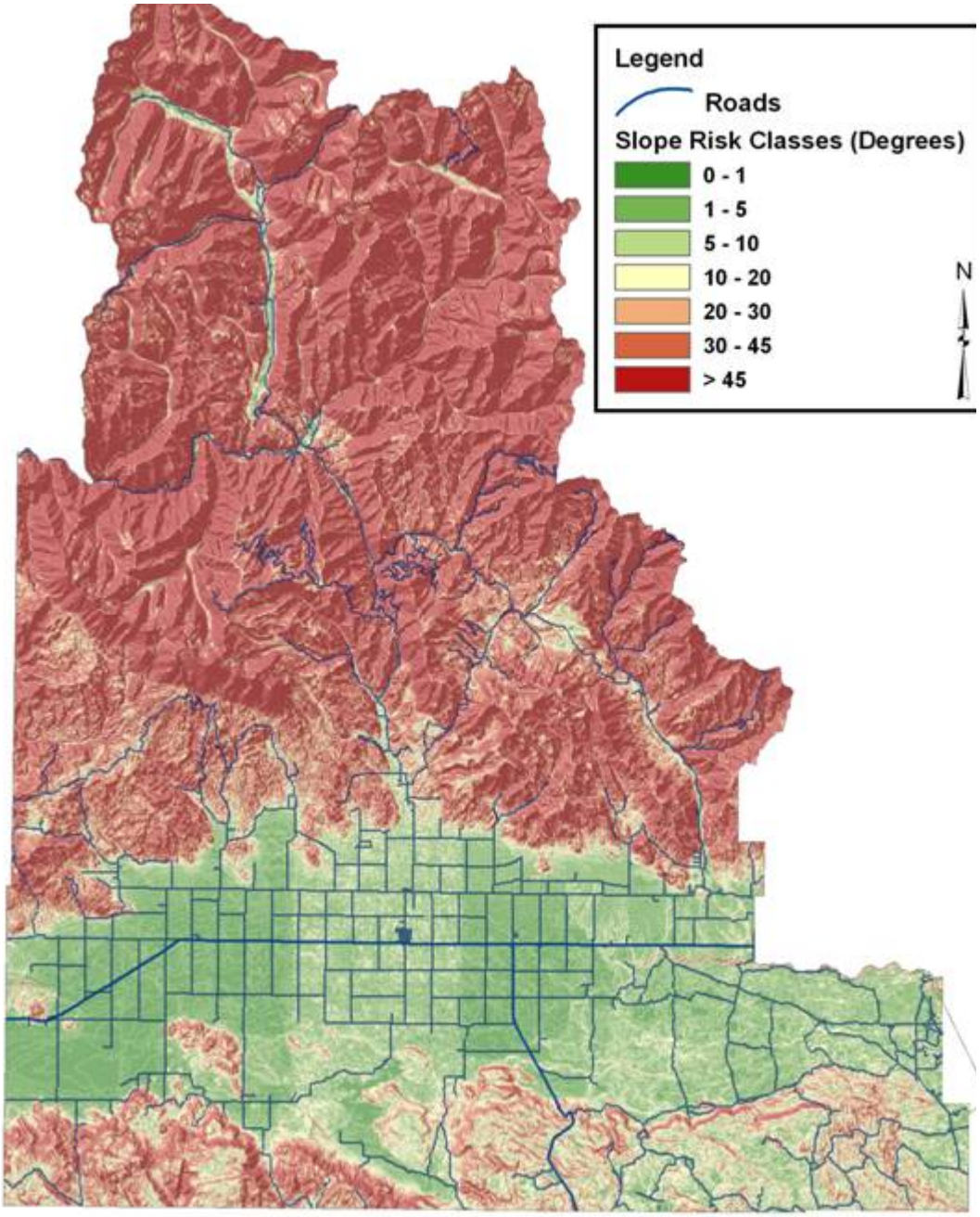

Figure 4. Slope risk model for Camas County.

Mutual Aid Agreements

Mutual aid agreements exist between the Gooding and Camas County Fire departments. This allows for temporary equipment and personnel assignments to other districts on an as needed basis. This agreement includes fire departments and fire agencies from surrounding counties. Both Districts also have mutual aid agreements with the Bureau of Land Management. Currently no mutual aid agreement exists between Camas County Fire department and the USFS.

Parcels vs. Subdivisions

The County and State subdivision regulations cover dividing of lands within the county, but there are many pieces of land or parcels that have homes on them that in some cases predate existing regulations. These parcels are not part of a legal subdivision and may have different regulations covering their future development.

Description of Assessment Areas

The Camas County assessment area includes two fire departments encompassing 688,618 acres (Table 5). The major population centers within the county are the communities of Fairfield, Corral, and West Magic. Figure 5 illustrates the boundaries of the fire departments within Camas County.

Table 5. Landownership within Camas County Fire Protection Districts

	BLM	Private	State	USFS	Water	Total
Camas –Fairfield Fire Department	117,929	225,228	22,257	317,778	2,395	685,587
W. Magic Fire Department	778	2,227		0	26	3,031
Total	118,707	227,455	22,257	317,778	2,421	688,618

Camas County – Fairfield Fire Department Current Resources and Assets

Fire chiefs completed the following assessment forms showing an overview of each fire department. These forms provide accuracy and consistency in the evaluation process.

Table 6. Summary of the Camas County Fire department Assessment.

Camas – Fairfield Fire Department Assessment Overview – Resources and Assets	
Facilities	The main fire station is located in Fairfield and is the only permanent fire facility in this Fire department. It houses all district and city fire fighting apparatus, offices and training facilities.
Response Area	The Fire department response is the entire county including the SNF.
Budget and Funding	The primary portion of the budget for this Fire department is derived from taxes and funds are derived from fund-raising efforts.
Grants	The department has received grants from Homeland Security, FEMA, and BLM

Records Management	This Fire department has no formal records keeping program in place at this time.
Hazardous Materials Program	ISP provides Hazmat response teams to this fire department.
EMS Program	EMS services are separate from fire department activities. Fire department personnel are not currently trained for EMS activities.
Training and Certification	Currently, there are no record training programs.
Communications	Fire dispatch is done through Camas County Sheriffs Department.
Prevention and Inspection	The Fire department does not currently have fire prevention, fire code enforcement programs in place. The State Fire Marshall's Office provides investigations.
Public Education	The Fire department does not currently have a public education program in place.

Table 7. Summary of the West Magic Fire Department Assessment.

West Magic Fire Department Assessment Overview – Resources and Assets	
Facilities	The main fire station, located in West Magic, ID is the only permanent fire facility in this fire department. It houses all district and city fire fighting apparatus, offices and training facilities.
Response Area	Response area includes residential areas and subdivisions around West Magic. The response area is located on the west shore of Magic Reservoir and lies in Both Camas and Blaine Counties
Budget and Funding	The primary portion of the budget for this Fire department is derived from taxes and funds are derived from fund-raising efforts.
Grants	The fire department has received one BLM grant.
Records Management	This Fire department has manually maintained personnel training records database, emergency call volume, fire fighting agreements and equipment maintenance records.
Hazardous Materials Program	ISP provides Hazmat response teams to this fire department.
EMS Program	EMS services are separate from Fire department activities.
Training and Certification	Training records for fire personnel are reside at the West Magic Fire Department.
Communications	Three handheld radios are available for the three apparatus within the fire department.
Prevention and Inspection	Prevention follows BLM programs.
Public Education	The BLM conducts public education programs for the fire department.

Fire Fighting Apparatus

The following equipment lists are by fire department and includes only serviceable, fully equipped apparatus. Both of the Fire departments have the basic fire fighting equipment required for structure and wildland fires. At this time all active fire/emergency personnel have pager and/or radio communication to respond to an emergency call. VHF radios are in wildland fire vehicles to communicate with BLM and other government emergency responders.

Camas County Fire Department Equipment

1. 1986 Chevy Type 6 Wildland Engine, 200 gallon
2. 1979 Dodge Type 6 Wildland Engine, 200 gallon
3. 1970 Ford Type 6 Wildland Engine, 200 gallon
4. 1997 Ford Type 1 Structure Engine, P-6
5. 1980 International Water Tender, 1500 gallon
6. 1988 International Type 4 Wildland Engine
7. 1990 International Type 4 Wildland Engine

West Magic Fire Department Equipment

1. 1978 Seagrave Structural Engine 750gal, 1000gpm
2. 1976 GMC Heavy 4X4 Wildland Fire Engine 350gal
3. 1976 GMC Heavy 4X4 Wildland Fire Engine 350gal
4. 1987 Diesel Military 6X6 Tender 1500gal

Field Assessment Forms and Ratings

Standardized Field Assessment Forms were used to assess subdivisions within each fire department. The assessment (Tables 8, 9, and 10) show the rating elements (Classes A-C) for each area of concern. Tables 11 and 12 show areas of concern, the corresponding rating element, and the overall assessment value (1-3) assigned to each subdivision. The higher the overall assessment value, the higher the fire risk for that subdivision. In addition, Table 11 shows an overall risk value assigned to each subdivision. These values were derived by soliciting the fire chiefs, county commissioners, homeowners, and forest service personnel during a public meeting. The higher the overall risk value, the higher the fire risk for that subdivision. Table 13 shows the overall results for all subdivisions.

Table 8. Fire Hazard Assessment Description

FIRE HAZARD ASSESSMENT DESCRIPTION FORM			
Rating Element	**Class A***	**Class B****	**Class C*****
Vegetation Type	S/G= Sagebrush/Grassland, L/P/G= Locust/Pine/Grassland, R/J/G= Russian Olive/Juniper/Grassland, S/G/A=Sage/Grassland/Aspen, F/S/G/A=Fir/Sage/Grassland/Aspen		
Slope	**Flat to little slope (< 10%**	**Moderate slopes (10-30%)**	**Steep Slopes (> 30%)**
Aspect	**North (N, NW, NE)**	**East or level**	**South and West (SE,S,SW,W)**

Elevation	**>5500 feet**	**3500-5500 feet**	**<3500 feet**
Fuel Type	**Small, light fuels (grass, weeds, shrubs)**	**Medium Fuels. (brush, medium shrubs, small trees)**	**Heavy Fuels. (timber, woodland, large brush or heavy planting of ornamentals)**
Fuel Density	**Non-continuous fuel bed. Grass and /or sparse fuels adjacent to federal land (<30% cover)**	**Broken Moderate fuels adjacent to federal land (31 to 60% cover**	**Continuous fuel bed. Composition conductive to crown fires or high intensity surface fires (> 60% cover)**
Fuel Bed Depth	**Low (average < 1 foot)**	**Moderate (average 1-3 feet)**	**High (average > 3 feet)**

*Class A (1) low fire risk
**Class B (2) = medium fire risk
***Class C (3) = high fire risk

Table 9. Structure Hazard Assessment Description

STRUCTURE HAZARD ASSESSMENT DESCRIPTION FORM			
Rating Element	**Class A***	**Class B****	**Class C****
Structure Density	**At least one structure per 0-5 acres**	**One structure per 5-10 acres**	**Less than one structure per 10 acres**
Proximity of flammable fuels to structures	**>100 feet**	**40-100 feet**	**Less than 40 feet**
Predominant Building Materials/ Flammability of structures	**Majority of homes have fire resistant roofs and/or siding**	**10-50% of homes have fire resistant roofs and/or siding**	**Less than 10% of homes have fire resistant roofs and/or siding**
Survivable Space Actions on Private Property	**Majority of homes have improved survivable space around property (> 50%)**	**10-50% of homes have improved survivable space around property**	**Less than 10% of homes have improved survivable space around property.**
Roads	**Wide loop Roads that are maintained, paved, or solid surface with shoulders.**	**Roads maintained. Some narrow two lane roads with no shoulders**	**Narrow and or single lane, minimally maintained, no shoulders**
Response Time	**Prompt response time to interface areas (20 min or less)**	**Moderate response time to interface areas (20-40 minutes)**	**Lengthy response to interface areas 40+ minutes**
Access	**Multiple entrances and exits that is well equipped for fire trucks with turnarounds.**	**Limited access routes. 2 ways in and 2 ways out. Moderate grades.**	**Narrow, dead end roads or 1 way in, 1 way out. Steep grades**

*Class A (1) low fire risk
**Class B (2) = medium fire risk
***Class C (3) = high fire risk

Table 10. Community Assessment Description

COMMUNITY ASSESSMENT DESCRIPTION FORM			
Rating Element	**Class A***	**Class B****	**Class C*****
Community Description	There is a clear line where residential business and public structures meet wildland fuels. Wildland fuels do not generally continue into the developed area.	There is no clear line of demarcation wildland fuels are continuous outside of and within the developed area.	The community generally exists where homes, ranches, and other structures are scattered by adjacent to wildland vegetation.
Response Time	Prompt response time to interface areas (20 min or less).	Moderate response time to interface area (20-40 minutes).	Lengthy response time to interface area (40+ minutes).
Firefighting Capability	Adequate structural fire department. Sufficient personnel, equipment, and wildland firefighting capability and experience.	ome wildland firefighting	Fire department non-existent or untrained and/or equipped to fight wildland fire.
Water Supply	Adequate supply of fire hydrants and pressure, and/or open water sources (pools, lakes, reservoirs, rivers, etc.).	Inadequate supply of fire hydrants, or limited pressure. Limited water supply.	No pressure water system available near interface. No surface water available.
Local Emergency Operations Group (EOG)	Active EOG. Evacuation plan in place.	Limited participation in EOG. Have some form of evacuation process.	No EOG. No evacuation plan in place.
Structure Density	At least one structure per 0-5 acres.	On structure per 5-10 acres.	Less than one structure per 10 acres.
Community Planning Practices	County/local laws and zoning ordinances require use of fire safe residential design and adequate ingress/egress of fire suppression resources. Fire Department actively participates in planning process.	Local officials have an understanding of appropriate community planning practices for wildfire loss mitigation. Fire department has limited input to fire safe development and planning efforts.	Community standards for fire safe development and protection are marginal or non-existent. Little or no effort has been made in assessing and applying measures to reduce wildfire impact.
Fire Mitigation Ordinances, Laws, or Regulations in Place	Have adopted local ordinances or codes requiring fire safe landscaping, building and planning. Fire Department actively participates in planning process.	Have voluntary ordinances or codes requiring fire safe landscaping and building practices. Fire Department practices in planning process.	No local codes, laws, or ordinances requiring fire safe building landscaping or planning processes.
Fire Department Equipment	Good supply of structure and wildland fire apparatus and miscellaneous specialty equipment.	Smaller supply of fire apparatus in fairly good repair with some specialty equipment.	Minimum amount of fire apparatus, which is old and in need of repair. None or little specialty equipment.
Fire Department Training and Experience	Large, fully paid fire department with personnel that meet NFPA or NWCG training requirements, are	Mixed fire department. Some paid and some volunteer personnel. Limited experience, training,	Small, all volunteer fire department. Limited training, experience, and budget with regular turnover of personnel. Do

	experienced in wildland fire, and have adequate equipment.	and equipment to fight wildland fire.	not meet NFPA or NWCG standards.
Community Fire Safe Efforts and programs already in place	Organized and active groups (Fire Dept.) providing educational materials and programs for their community.	Limited interest and participation in educational programs. Fire Department does some prevention and public education.	No interest of participation in educational programs. No prevention/education efforts by fire department.
Community support and attitudes	Actively supports urban interface plans and actions.	Some participation in urban interface plans and actions.	Opposes urban interface plans and efforts.

*Class A (1) low fire risk
**Class B (2) = medium fire risk
***Class C (3) = high fire risk

Table 11. Camas County Structural Assessment Forms

Subdivisions and Additions	Hill City	Homestead SD	Smokey Dome Ranch	M.L. Danielson SD	Soldier Mtn Ranch	Silver Brush SD	Sampson Creek Add	Willow Creek SD	Phillips SD	Strickland SD	South Fork Boise Cr.	West Shore SD (W. Magic)
Vegetation Type	S/G	S/G	L/P/G	L/P/G	S/G	R/J/G	S/G	S/G	S/G/A	S/G	F/S/G/A	S/G
Slope	A	A	A	A	A	B	A	B	B	A	C	A
Aspect	B	C	B	C	C	C	C	C	A	B	C	C
Elevation	B	B	B	A	B	A	B	B	B	B	A	C
Fuel Type	A	B	A	C	B	B	B	B	B	A	C	A
Fuel Density	A	B	A	C	B	B	B	B	B	A	C	A
Fuel Bed Depth	B	B	A	C	B	B	B	B	B	B	C	C
Structure Density	B	A	B	A	A	C	A	A	B	B	C	A
Proximity of Fuels	B	C	B	C	C	C	C	C	C	B	C	B
Building Materials	A	C	B	B	C	B	B	C	B	B	B	B

Survivable Space	**A**	**A**	**A**	**C**	**A**	**B**	**C**	**B**	**B**	**B**	**C**	**A**
Roads	**A**	**B**	**A**	**C**	**B**	**C**	**C**	**C**	**C**	**C**	**C**	**A**
Response Time	**B**	**C**	**B**	**B**	**C**	**C**	**B**	**C**	**B**	**B**	**C**	**A**
Access	**A**	**C**	**B**	**B**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**A**
Overall Assessment Value	**19**	**28**	**20**	**30**	**28**	**31**	**29**	**31**	**28**	**25**	**36**	**21**
Overall Risk Value*	**2**	**8**	**5**	**9**	**7**	**11**	**3**	**4**	**6**	**6**	**10**	**7**

*Numbers derived from fire and emergency personnel

Table 12. Camas County Community Assessment

Subdivisions and Additions	**Hill City**	**Homestead SD**	**Smokey Dome Ranch**	**M.L. Danielson SD**	**Soldier Mtn Ranch**	**Silver Brush SD**	**Sampson Creek Add**	**Willow Creek SD**	**Phillips SD**	**Strickland SD**	**S Fk Boise River**	**Westshore SD (W Magic)**
Community Description	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**B**	**C**	**B**	**C**	**B**
Firefighting Capability	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**C**	**B**
Water Supply	**B**	**A**	**C**	**B**	**A**	**B**	**B**	**B**	**B**	**B**	**C**	**B**
LEOG*	**C**	**B**	**C**	**C**	**B**	**C**	**C**	**C**	**C**	**C**	**C**	**C**
Community Planning Practices	**C**	**C**	**B**	**B**	**C**	**B**	**B**	**B**	**C**	**C**	**C**	**C**
Community Fire Safe Programs	**A**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**C**	**B**	**C**	**B**
Community Support	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**A**	**B**
Fire Mitigation Ordinances	**C**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**C**	**C**	**B**

Fire Department Equipment	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**A**	**B**
Fire Department Training/ Experience	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**A**	**C**
Overall Assessment Value	**24**	**22**	**24**	**23**	**22**	**23**	**23**	**22**	**25**	**24**	**24**	**23**

***LEOG=Local Emergency Operations Groups**

Table 13: Overall values for Fire/Structure and Community Assessments

Subdivisions and Additions	**Hill City**	**Homestead SD**	**Smokey Dome Ranch**	**M.L. Danielson SD**	**Soldier Mtn Ranch**	**Silver Brush SD**	**Sampson Creek Add**	**Willow Creek SD**	**Phillips SD**	**Strickland SD**	**S Fk Boise River**	**Westshore W Magic**
Fire/Structure Hazard Assessment												
Overall Value	**19**	**28**	**20**	**30**	**28**	**31**	**29**	**31**	**28**	**25**	**36**	**21**
Community Assessment												
Overall Value	**24**	**22**	**24**	**23**	**22**	**23**	**23**	**22**	**25**	**24**	**24**	**23**
Results from Fire and Emergency Personnel												
Overall Risk Value	**2**	**8**	**5**	**9**	**7**	**11**	**3**	**4**	**6**	**6**	**10**	**7**

Fire/Structure Hazard Assessment Summary

Fire Rating Scale	
Low	13-19
Low/medium	20-26
Medium	27-31
Medium/High	32-38
High	39 or greater

The overall values for Fire/Structure Assessment (Table 13) show subdivisions ranging from 19 to 36. The subdivision overall value is assigned a fire risk by comparing the value to the Fire Rating Scale.

Community Assessment Summary

Fire Rating Scale	
Low	10-14
Low/medium	15-19

Medium	20-24
Medium/High	25-29
High	30 or greater

The overall values for Community Assessment (Table 13) show subdivisions ranging from 22 to 25. The subdivision overall value is assigned a fire risk by comparing the value to the Fire Rating Scale.

Overall Risk Value Summary

The overall risk values (Table 13) show a strong correlation between the three highest fire risk subdivisions (M.L. Danielson, South Fork Boise River, and Silver Brush) and the overall values for the Fire/Structure Hazard Assessment.

5.0 MITIGATION

This section discusses fuels mitigation and needs and associated costs for Camas County Fire department located at Fairfield and the West Magic Fire Department. The environmental effects, restoration guidelines, and public education programs are included under one section and apply to both fire departments within Camas County. Table 25 includes a Mitigation Summary for Camas County – Fairfield Fire Department. The Potential Problems – Risks and Recommended Mitigation are identified based on field assessments and personal interviews with fire chiefs, homeowners, BLM and Sawtooth National Forest Service personnel.

Fuels Mitigation – Hazardous fuel buildup resulting in wildland fires represent the primary risk to homeowners, businesses, and state and federal facilities located outside of city limits. Fuel break locations are identified in this section based on recommendations provided by each fire chief, input from county commissioners and BLM, assessments of subdivisions and additions determined to be of importance and, review of other Wildand Fire Hazard Mitigations Plans for Camas County. The size of fuel breaks required and associated costs to construct these fuel breaks will vary, depending on hazardous fuels present, distance to transport construction equipment, and actual dimensions of fuel break.

Needs and Associated Costs – This section includes tables using information obtained directly from each fire chief addressing needs and associated costs for their department or district. Costs for training and certification programs are forthcoming

Environmental Effects – This section includes the environmental effects resulting from fuel break construction, mowing, disking, or other land disturbance and from the installation of dry hydrant.

Fire Prevention Programs - Public Education – This section introduces Camas County residents to FIREWISE and Red Zone, both excellent fire prevention programs, offers